



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

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GOVERNOR

DIVISION OF HIGHWAYS
P.O. BOX 25201, RALEIGH, N.C. 27611-5201

GARLAND B. GARRETT JR.
SECRETARY

March 17, 1997

MEMORANDUM TO: Mr. Charles E. Grady, Jr., Member, Board of Transportation
Ms. Juanita Shearer-Swink, FASLA, Member, Board of
Transportation
Mr. D. A. Allsbrook Jr., P.E., Division Engineer, Division 5
Mr. C. W. Leggett, P.E.
Mr. W. H. Webb, P.E.
Mr. J. M. Lynch, P.E. (6) Attention: Roberto Canales, P.E.
Congestion Management Engineer
Mr. J. B. Williamson
Mr. H. F. Vick, P.E. (2)
Mr. D. R. Morton, P.E.
Mr. G. T. Shearin, P.E.
Mr. M. R. Poole, P.E.
Mr. A. L. Avant (2)
Mr. J. D. Lane
Mr. T. A. Peoples, P.E.
Mr. L. K. Barger, P.E.

FROM: David G. Modlin, Ph.D., P.E. *David Modlin*
Head of Feasibility Studies

SUBJECT: Feasibility Study # U-3620, Morrisville, McCrimmon Parkway
from NC 54 to Airport Boulevard, Wake County.

Our staff has completed a feasibility study for the subject proposed project. This brief analysis suggests improvements that would be logical if the project were to be funded. A copy of our report is attached for your information.

DGM/joa

Attachment

cc: Dr. L. R. Goode, P.E.
Mr. B. G. Jenkins, P.E.
Mr. David W. Conner



FEASIBILITY STUDY

**Morrisville
McCrimmon Parkway
from NC 54
to Airport Boulevard
Wake County**

Division 5

U-3620

Prepared by the
Program Development Branch
Division of Highways
N. C. Department of Transportation

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2/21/97
Date

U-3620

Morrisville
McCrimmon Parkway
from NC 54
to Airport Boulevard
Wake County

I. General Description

This feasibility study describes the extension of McCrimmon Parkway (SR 1635) from NC 54 to Airport Boulevard (SR 3015), a distance of 0.4 miles (0.6 km). The project location is shown on Figure 1.

The recommended cross section, for the total project length, is a 4-lane, median divided, curb-and-gutter section with two 12-foot (3.6-m) wide travel lanes in each direction, a 16-foot (4.9-m) wide raised median, 1-foot (0.3-m) wide inside gutters, 2-foot (0.6-m) wide outside gutters, and 10-foot (3.0-m) wide berms.

The recommended right-of-way width is 100 feet (30.5 m).

It is anticipated that there will not be any residences or businesses relocated due to this project.

The total cost of the project, including construction and right-of-way, is estimated to be \$2,365,000 as follows:

Right-of-way	\$ 865,000
Construction	1,500,000
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Total	\$2,365,000

This study is the initial step in the planning and design process for this project and is not the product of exhaustive environmental or design investigations. The purpose of this study is to describe the proposed project including costs, and to identify potential problems that may require consideration in the planning and design phases.

II. Need for Project

The purpose of this project is to provide the only continuous east-west route through the northern portion of the Town of Morrisville. This extension will serve a highly populated commercial/industrial area and provide for direct access to the Raleigh-Durham International Airport from west of NC 54. This project was requested by the Capital Area Metropolitan Planning Organization and is supported by the Town of Morrisville.

McCrimmon Parkway is designated as a major thoroughfare on the Wake County Thoroughfare Plan and is not on the North Carolina Statewide Functional Classification System.

The project route is presently undeveloped but lies within a heavy commercial/industrial area.

At the southwest project terminus, existing McCrimmon Parkway (southwest of NC 54) is currently a two-lane, two-way, rural shoulder section with a 20-foot (6.1-m) wide pavement. NC 54 is a two-lane, two-way, rural shoulder section with a 28-foot (8.5-m) wide pavement.

At the eastern project terminus, existing McCrimmon Parkway is a 4-lane, median divided, curb-and-gutter section with two 12-foot (3.6-m) wide travel lanes in each direction, a 17-foot (5.2-m) wide raised median, 1-foot (0.3-m) wide inside gutters, 2-foot (0.6-m) wide outside gutters, and 14-foot (4.2-m) wide berms. This segment of roadway extends approximately 0.2 miles (0.3 km) west of SR 3015 and includes a 4-foot (1.2-m) wide sidewalk on the south side of the roadway. This cross section differs from the recommended cross section only in the median width, berm width, and inclusion of sidewalks.

It is estimated that in the design year (2020), McCrimmon Parkway will be carrying a traffic volume of approximately 14,600 vehicles per day. With the recommended cross section, it is estimated that the roadway will operate at Level of Service A through the design year.

III. Recommendations / Description of Project

It is proposed to extend McCrimmon Parkway (SR 1635) from NC 54 to Airport Boulevard (SR 3015). The total project length is 0.4 miles (0.6 km). For a location map, please see Figure 1.

A 4-lane, median divided, curb-and-gutter section with two 12-foot (3.6-m) wide travel lanes in each direction, a 16-foot (4.9-m) wide raised median, 1-foot (0.3-m) wide inside gutters, 2-foot (0.6-m) wide outside gutters, and 10-foot

(3.0-m) wide berms is proposed for the entire project length on a 100 foot (30.5-m) wide right-of-way.

At the southwest terminus, the northbound approach of NC 54 should be widened to include a right-turn lane, a through lane, and a left-turn lane. The southbound approach should be widened to include a combination through/right-turn lane, and a left-turn lane.

New traffic signals should be installed at NC 54 and Airport Boulevard.

It is anticipated that there will not be any residences or businesses relocated due to this project.

The total cost of the project, including right-of-way and construction, is estimated to be \$2,365,000 as follows:

Right-of-way	\$ 865,000
Construction	1,600,000
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Total	\$2,365,000

IV. Other Comments

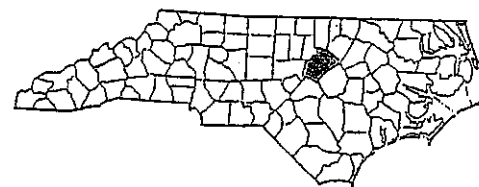
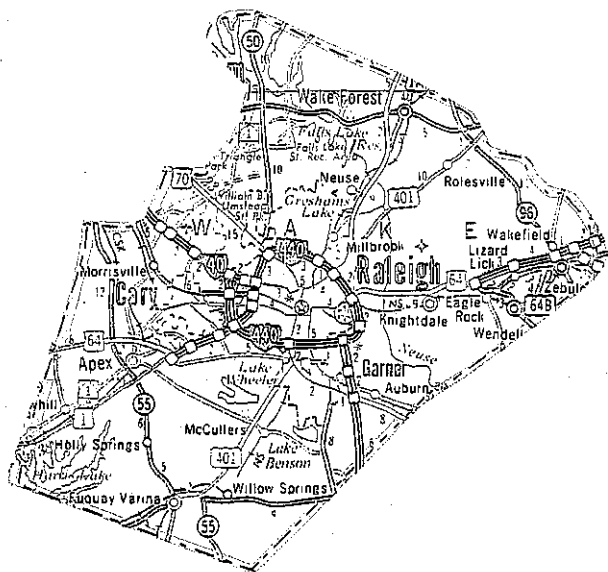
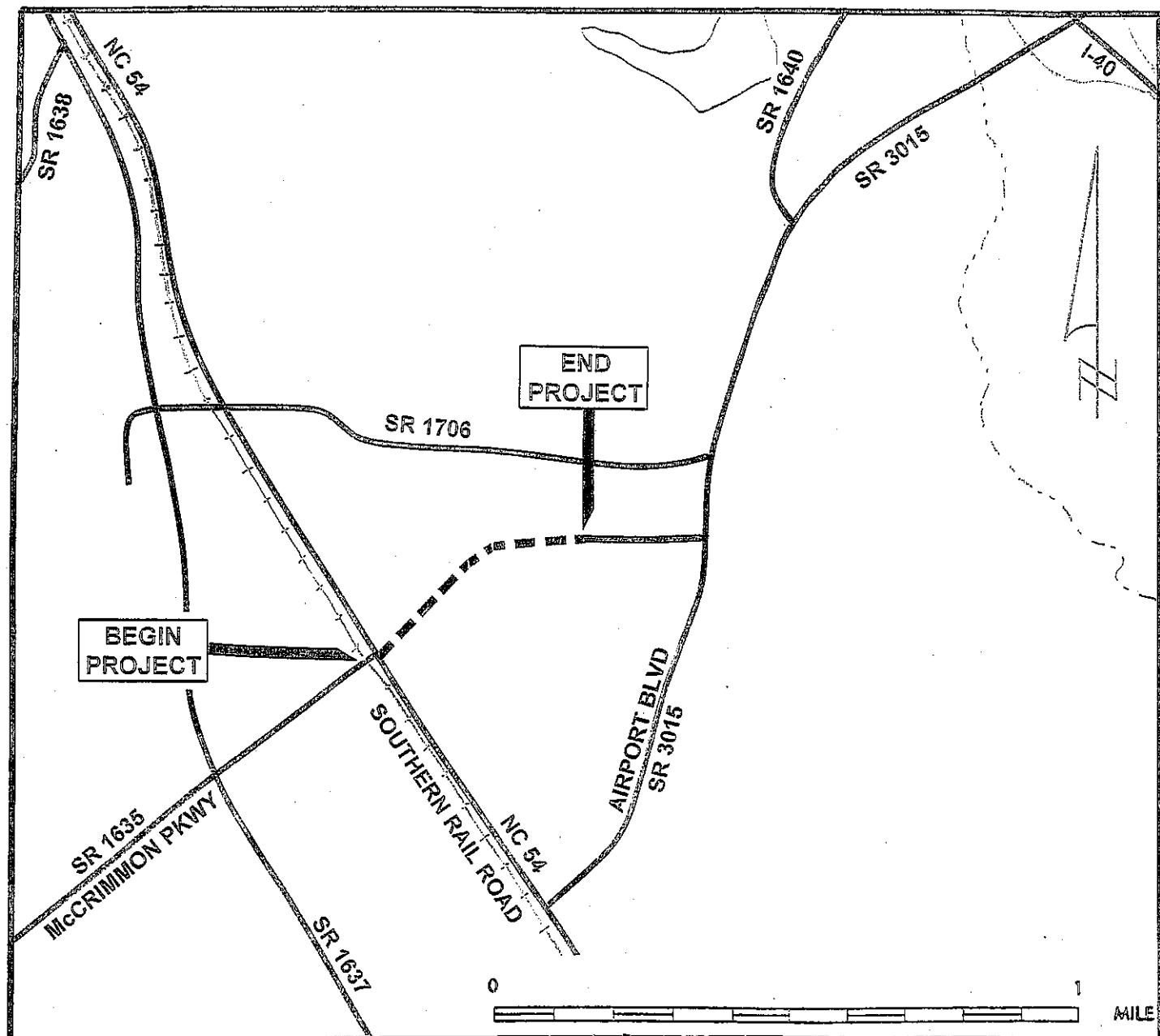
An environmental screening was not conducted for this study. However, no impacts to historic properties or wetlands are anticipated.

Based on maps at the Department of Environment, Health & Natural Resources - Natural Heritage Section, no threatened or endangered species were identified in the project corridor.

The NCDOT Bicycle Program has identified McCrimmon Parkway as a roadway which does not have need for special accommodations for bicycles.

It is estimated that the cost to match the existing McCrimmon Parkway cross section, at the east terminus, would be \$2,465,000 as follows:

Right-of-way	\$ 865,000
Construction	1,600,000
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Total	\$2,465,000



North Carolina Department of Transportation Program Development Branch	
U-3620	
Morrisville McCrimmon Parkway from NC 54 to Airport Boulevard Wake County	
DIV. 5	FIGURE 1